LED Spere Direct Control 100 V1

ORDERCODE 41127

SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!
You have bought a great, innovative product from Showtec.
The Showtec LED Sphere Direct Control 100 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!

Showtec

Showtec LED Sphere Direct Control 100™ Product Guide

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WARNING

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Only use device indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.

- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For replacement use fuses of same type and rating only.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

CAUTION ! EYEDAMAGES !.
Avoid looking directly into the light source.
(meant especially for epileptics) !

OPERATING DETERMINATIONS

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc.

You endanger your own safety and the safety of others!

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:

- If a LED Sphere is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Mount the LED Sphere to the trussing system.
- The LED Sphere must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the LED Sphere, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

Improper installation can cause serious damage to people and property !

Description of the device

Features

The LED Sphere Direct Control 100 is designed for the more demanding user:

- 3 DMX Channels (Red, Green, Blue)
- Controllable by DMX or built-in programs.
- Built-in Microphone
- 12 Dipswitches
- Only use Indoor
- RGB colourmixing
- Standalone, music control, Master-slave
- Fuse 1A 250V
- DMX IN and DMX OUT.

Overview

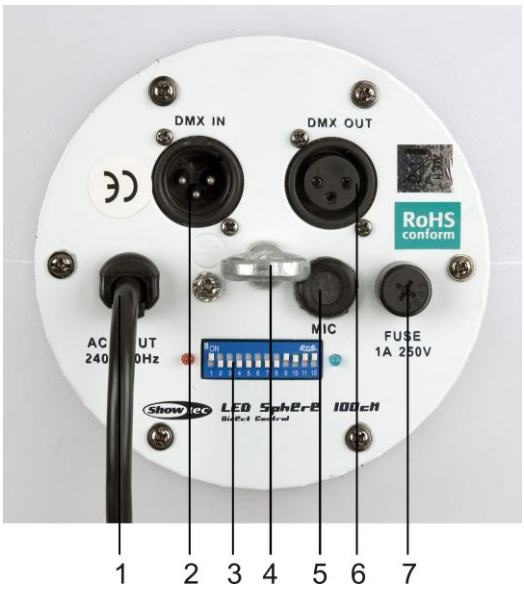


Fig. 1

1) Power cable
2) DMX signal connector (IN)
3) Dipswitches
4) Safety Eye
5) Microphone
6) DMX signal connector (OUT)
7) Fuse 1A 250V

Installation

Remove all packing materials from the LED Sphere Direct Control 100. Check that all foam and plastic padding is removed. Connect all cables.

Note: It's necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Set Up and Operation

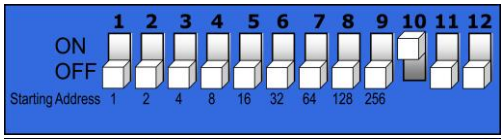
Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Control Modes

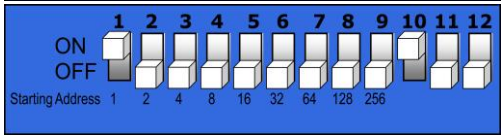
When using the LED Sphere in stand-alone Mode, you must always set dipswitch #10 to ON.

1. Chase Mode

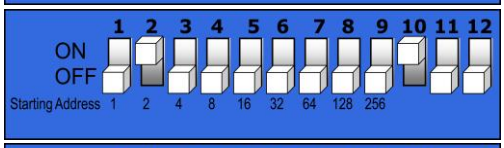
You can use dipswitches #1, #2 and #3 to set 8 different chases.
Note : You must also set dipswitch #10 to ON.



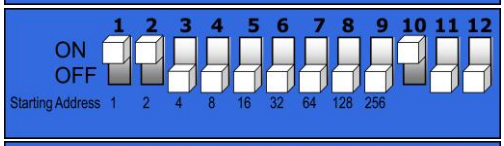
Chase 1 : Red and Green Chase loop



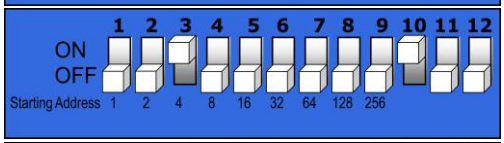
Chase 2 : Green and Blue Chase loop



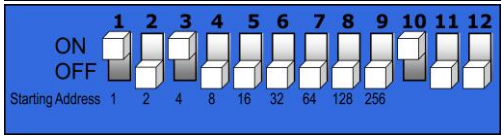
Chase 3 : Blue and Red Chase loop



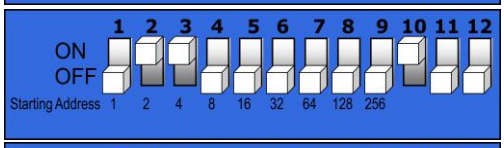
Chase 4 : Cyan and Red Chase loop



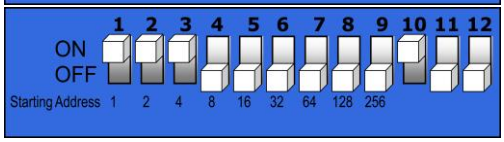
Chase 5 : Magenta and Green Chase loop



Chase 6 : Yellow and Blue Chase loop



Chase 7 : Black and White Chase loop

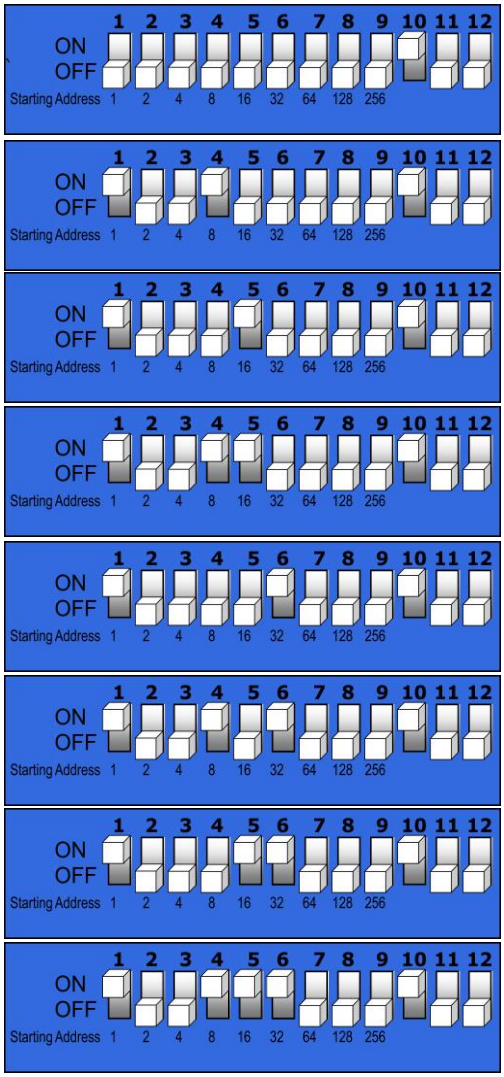


Chase 8 : 7 Chases loop

2. Speed Mode

You can use dipswitches #4, #5 and #6 to set 8 different chases.

Note : Speed mode will only work if you have selected a chase.
You must also set dipswitch #10 to ON.



Fastest (0,5 sec.)

(1,5 sec.)

(3 sec.)

(4,5 sec.)

(8 sec.)

(12 sec.)

(50 sec.)

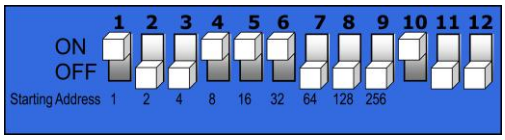
Slowest (60 sec.)

3. Master/Slave Mode

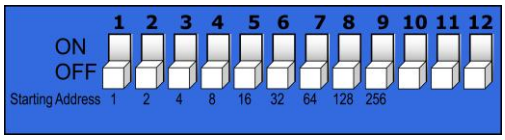
In Master/slave mode set the Master unit to: (set dipswitch #10 ON, dipswitch #11 and #12 OFF)

Note : Be sure to also use dipswitches #1 - #3 (Chase) and #4 - #6 (Speed)

Set all the Slave units to: (set dipswitch #10, #11, #12 OFF)



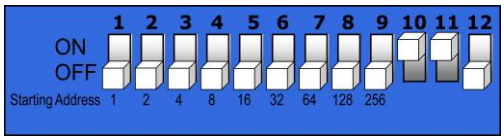
Master



Slave

4. Sound Control Mode

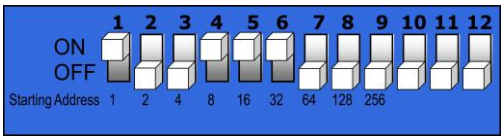
When dipswitch #11 is turned on, the LED Sphere will automatically change its color to the beat of the music. With the Sensitivity control you can adjust its music-sensitivity.



Note : You must also set dipswitch #10 to ON.

DMX Controlled

1. Turn the power switch on. If the DMX cable has been plugged in, the LED next to the dipswitches will blink.
2. Now your unit is DMX-Controlled.
3. When all dipswitches are turned off, the LED Sphere is in DMX Mode.
   Dipswitches #1 - #9 control the DMX Addresses.



DMX products must have their own "address" to receive DMX signals. Addresses on the controller are set by flipping the appropriate DMX dipswitches.

You need to know that DMX address settings are the sum of the dip switch values.
A standard DMX address for a LED Sphere, which has 6 channels is as follow:

LED Sphere	Address Value	DMX Dip Switches "ON"
Unit 1	1	#1
Unit 2	7	#1, #2 and # 3.
Unit 3	13	#1, #3 and # 4.
Unit 4	20	#3 and #5.

Explanation: Since each unit has 6 channels, each address advances 6 values (See Address Value above). Once address values are determined, set the appropriate DMX dip switches on each unit.

Example:

1. If you want to give a LED Sphere DMX address133, you first have to find the number 133 in the DMX Chart.
2. Then look at the left side (Dip Switches #1-#5) horizontally from 133.
   In the Table you'll see #1=ON, #2=OFF, #3=ON, #4=OFF, #5=OFF.
3. Finally look at the upper side of the table (Dip Switches #6-#9) vertically from 133.
   In the Table you'll see #6=OFF, #7=OFF, #8=ON, #9=OFF.

DMX Address Quick Reference Chart

DMX DIP SWITCH SET 0=OFF 1=ON	#9	0	0	0	0	0	0
	#8	0	0	0	0	1	1
	#7	0	0	1	1	0	0
	#6	0	1	0	1	0	1

#1	#2	#3	#4	#5
0	0	0	0	0
1	0	0	0	0
0	1	0	0	0
1	1	0	0	0
0	0	1	0	0
1	0	1	0	0
0	1	1	0	0

	32	64	96	128	160
1	33	65	97	129	161
2	34	66	98	130	162
3	35	67	99	131	163
4	36	68	100	132	164
5	37	69	101	133	165
6	38	70	102	134	166

DMX Address Quick Reference Chart

Dip Switch Positior

DMX DIP SWITCH SET 0=OFF 1=ON																				
					#9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
					#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
					#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
					#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
#1	#2	#3	#4	#5																	
0	0	0	0	0			32	64	96	128	160	192	224	256	288	320	352	384	416	448	480
1	0	0	0	0		1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481
0	1	0	0	0		2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482
1	1	0	0	0		3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483
0	0	1	0	0		4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484
1	0	1	0	0		5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485
0	1	1	0	0		6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486
1	1	1	0	0		7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487
0	0	0	1	0		8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488
1	0	0	1	0		9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489
0	1	0	1	0		10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490
1	1	0	1	0		11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491
0	0	1	1	0		12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492
1	0	1	1	0		13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493
0	1	1	1	0		14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494
1	1	1	1	0		15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495
0	0	0	0	1		16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496
1	0	0	0	1		17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497
0	1	0	0	1		18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498
1	1	0	0	1		19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499
0	0	1	0	1		20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500
1	0	1	0	1		21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501
0	1	1	0	1		22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502
1	1	1	0	1		23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503
0	0	0	1	1		24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504
1	0	0	1	1		25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505
0	1	0	1	1		26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506
1	1	0	1	1		27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507
0	0	1	1	1		28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508
1	0	1	1	1		29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509
0	1	1	1	1		30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510
1	1	1	1	1		31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511

Dip Switch Position **DMX Address**

DMX Protocol

Channel 1 – Red

0-255	Gradual adjustment Red from 0 – 100%

Channel 2 – Green

0-255	Gradual adjustment Green from 0 – 100%

Channel 3 – Blue

0-255	Gradual adjustment Blue from 0 – 100%

Channel 4 – Dimmer intensity

0-255	From black to brightest

Channel 5 – Sound sensitivity

0-25	No functions
26-255	Sound-active

Note: When using the Sound active function, please be sure to first select CH1, CH2, CH3 and CH4

Channel 6 – Auto Fade

0-4	No fade
5-255	Fade between the active channels

Note: When using the Auto Fade function, please be sure to first select CH1, CH2, CH3 and CH4

Maintenance

The Showtec LED Sphere Direct Control 100 requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.
Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

Showtec LED Sphere Direct Control 100

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. If the device does not operate properly, unplug the device.
2. Check power from the wall, all cables, the fuse, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If nothing happens after 30 seconds, unplug the device.
5. Return the device to your Showtec dealer.

Product Specification

Model: Showtec LED Sphere Direct Control 100 (41127)
Total LEDs: 81 (27 red, 36 green, 18 blue)
Power Supply: 240V
Power Consumption: 12W
3 DMX Channels (Red, Green, Blue)
Controllable by DMX or built-in programs.
Built-in Microphone
12 Dipswitches
Only use Indoor
RGB colourmixing
Standalone, music control, Master-slave
Fuse 1A 250V
DMX IN and DMX OUT.
Dimensions: ø100cm
Weight: 23 Kg

Design and product specifications are subject to change without prior notice.

CE

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Email: service@highlite.nl

HIGHLITE INTERNATIONAL BV

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